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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/840,151	04/24/2001	Yoshiko Akazawa	1573.1005	3422

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EXAMINER

PESIN, BORIS M

ART UNIT PAPER NUMBER

2174

DATE MAILED: 02/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/840,151

Applicant(s)

AKAZAWA ET AL.

Examiner

Boris Pesin

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12/01/2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-6,8-10,12-14,16-19,21-23,25-27,29-31 and 33-39 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

- 5) ☐ Claim(s) _____ is/are allowed.

- 6) ☒ Claim(s) 1, 2, 4, 5, 6, 8, 9, 10, 12, 13, 14, 16, 17, 18, 19, 21, 22, 23, 25, 26, 27, 29, 30, 31, 33, 34, 35, 36, 37, 38, and 39 is/are rejected.

- 7) ☐ Claim(s) _____ is/are objected to.

- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.

- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) ☒ All b) ☐ Some * c) ☐ None of:

1. ☒ Certified copies of the priority documents have been received.

2. ☐ Certified copies of the priority documents have been received in Application No. _____.

3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)

- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.

- 5) ☐ Notice of Informal Patent Application (PTO-152)

- 6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

This communication is responsive to the amendment filed 12/01/2005.

Claims 1, 2, 4, 5, 6, 8, 9, 10, 12, 13, 14, 16, 17, 18, 19, 21, 22, 23, 25, 26, 27, 29, 30, 31, 33, 34, 35, 36, 37, 38, and 39 are pending in this application. Claims 1, 9, 18, 26, 35, and 39 are independent claims. In the amendment dated 12/01/2005, Claims 1, 9, 18, 26, 35, and 39 were amended. This action is made Non-Final.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-2, 4-6, 8-10, 12-14, 16-19, 21-23, 25-27, 29-31, and 33-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kenney (US 6381583) in view of Burge et al. (US 6014638) further in view of Cheng (US 6396509).

In regards to claim 1, Kenney teaches an information processing apparatus comprising a display; a memory device and a processor, said memory device having a first memory area for storing avatar information as controlled by a user and a second memory area for storing data representative of a plurality of respective three-dimensional virtual reality scenes each with virtual objects therein and; a processor programmed to perform operations causing rendered images of a first three-dimensional virtual reality scene to be displayed on said display, data representative of said first virtual reality scene being stored in said second memory area(i.e. "*The storage means 10 can be implemented in any suitable manner, such as by one central memory or multiple distributed memories, or individual memories (e.g., diskettes or CD-ROMs provided to the shoppers for their individual use at home or business).*" Column 5, Line 49), said first virtual reality scene including predefined virtual objects and an avatar controlled by said user (i.e. "*The data from the storage means 10 is used to provide a video representation of the shopping facility as presented through a display means 12 as represented in FIG. 1.*" Column 5, Line 57), said virtual objects being associated with respective specific items of content (i.e. "*The system creates an electronically produced, electronically transmissible visual replica of a display of goods or other objects at a shopping facility or other particular environment. The shopping facility is conveyed to a shopper through the present invention as a specific shopping*

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environment to be met when the shopper is actually at the facility." Column 4, Line 66), said avatar being controlled by said user to act in said first virtual reality scene and to gaze at objects therein to display in the images of the first virtual reality scene, where the display of an object displays information about a corresponding item of content (i.e. *"The control means 14 further allows the shopper to cause the display means 12 to stop at a desired part of the aisle, turn toward that particular part, and zoom in on a particular product. The control means 14 can also allow the shopper to cause the display means 12 to show movement of the selected product off the shelf for closer examination or for moving the displayed representation of the selected product into the represented shopping cart in the same manner as the shopper would actually function in the real grocery store 2."* Column 7, Line 7); storing, at predetermined intervals (inherent in Kenney) in said first memory area, records of avatar coordinates representative of behavior of said avatar, as at least one of positions and gaze orientation information of said avatar as controlled in said first virtual reality scene input from said user (i.e. *"The storage means 10 can be implemented in any suitable manner, such as by one central memory or multiple distributed memories, or individual memories (e.g., diskettes or CD-ROMs provided to the shoppers for their individual use at home or business)."* Column 5, Line 49 and *"In general, traveling through the store involves the programming of one or more of the computers 18, 20 to determine the location of the shopper, access data, and display the retrieved data."* Column 9, Line 34); analyzing the action of said avatar in said first virtual reality scene in accordance with the records of the avatar coordinates stored in said first memory area relative to

said virtual objects and coordinates of said virtual objects stored in said second memory area to determine, as action data, weights of items of content that are of interest for respective categories to said user in relation to at least one of said virtual objects to which said avatar gets close according to the at least one of the positions and the gaze orientation information of said avatar relative to positions of said predefined virtual objects in said first virtual reality scene, and allowing rendered images of a second virtual reality scene to be displayed on said display (i.e. *"When the shopper stops at a particular section to look at a product, as indicated by left, right, forward or reverse motion such as input through the arrow keys of the keyboard, a more limited, closer view of a section of the aisle can be viewed, such as shown in FIG. 8. Although not shown in the representation of FIG. 8 due to space and lettering constraints, the individual products, such as product 36, appear on the display means as replicas of the actual products and include their labeling in sufficient definition that the labels can be read in at least close-up views."* Column 10, Line 5).

Kenney does not teach, an information processing apparatus that provides in accordance with said action data, a second three-dimensional virtual reality scene that includes other virtual objects, said other virtual objects having, said action data, respective specific optimal items of content and having respective specific optimal positions for prominent display in said second virtual reality scene. Burge teaches, *"During the display customization phase, displays with content regarding (1) general merchant information or options and/or (2) specific merchant product and service information or options are customized to conform to the shopper's preferences as*

indicated in the shopper's profile. A predictive model is applied to the profile data to select display characteristics and elements--such as the nature of items selected for the shopper, similarities to products recently purchased, icon or button locations, colors for background, icons/buttons, and text, fonts, etc.--for generating a display that is likely to reflect the shopper's preferences. The items that appear on the display (as represented by icons or buttons) may relate to a general topic, category, or area of interest (e.g., casual clothiers, camping equipment.) Items on a display may also relate generally to a group of merchants (e.g., ABC Co. Clothing, XYZ Camping Warehouse.) Finally, items may be merchant specific (e.g., ABC hiking boots, ABC jackets.)" Column 5 Line 64 – Column 6 Line 14. It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Burge with Kenney and include a system to customize the display based on the user preferences and place the items in prominent display with the motivation to provide the user with a convenient method of shopping that is adaptable to the user's habits.

Kenney and Burge do not teach that a three-dimensional virtual reality scene displayed from a third-person point of view. Cheng teaches, "*Although the system 8, as depicted, provides a third person view of the environment, it is to be recognized that the system 8 can provide either/both third and first person views, without departing from the principles of the invention. That is, system preferably is implemented so that the virtual environment is presented to its participant either in first person or third person view: (i) first person view provides for experiencing and interacting in the virtual environment effectively as if the participant is the avatar (e.g., as if the participant sees*

the environment effectively through the avatar's eyes) and (ii) third person view provides for experiencing and interacting in the virtual environment separate from the avatar (e.g., as if seeing the environment through a camera mounted at a view point effectively above the avatar and, in that regard, enabled to observe the avatar in the environment)" (Column 6, Lines 16-34). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Kenney and Burge with the teachings of Cheng and include a third person point of view with the motivation to provide the user with a better sense or awareness, of where the avatar is at a particular time.

In regards to claim 2, Kenney, Burge, and Cheng teach all the limitations of claim 1. Kenney, Burge, and Cheng further teach an information processing apparatus wherein a set of definition data of said second virtual reality scene is selected from sets of definition data of said respective virtual reality scenes (*"Display attributes for individual items (i.e., item graphics) may also be variable. Some icons or buttons (i.e., items) may be large or small and rectangular, square, or round. Some items may have associated text. Finally, an icon or button may contain a different picture depending on a user's preferences (e.g., store logo, product picture, product symbol.) In other words, several different pictures may be used to represent the same pair of hiking boots."* Burge, Column 6, Line 15).

In regards to claim 4, Kenney, Burge, and Cheng teach all the limitations of claim 1. Kenney, Burge, and Cheng further teach an information processing apparatus, wherein a further weighted feature of said user is derived from a message inputted by

said user to determine said second virtual reality scene (*"Profile data for the shopper (i.e., user data) 16 is stored in a User Profile Database 18. Profile data may also include personal data and details (e.g., age, sex) provided by the shopper when joining or subscribing to the service. This personal information may also be stored in the User Profile Database 18."* Burge, Column 7, Line 1).

In regards to claim 5, Kenney, Burge, and Cheng teach all the limitations of claim 1. Kenney, Burge, and Cheng further teach an information processing apparatus wherein a further weighted feature of said user is derived from data related to said user to determine said second virtual reality scene (*"the store visited, time of visit, merchandise viewed by shopper..."* Burge, Column 6, Line 56).

In regards to claim 6, Kenney, Burge, and Cheng teach all the limitations of claim 1. Kenney, Burge, and Cheng further teach an information processing apparatus wherein said second virtual world includes said avatar (i.e. *"The data from the storage means 10 is used to provide a video representation of the shopping facility as presented through a display means 12 as represented in FIG. 1."* Kenney Column 5, Line 57).

In regards to claim 8, Kenney, Burge, and Cheng disclose all the limitations of claim 1, but do not specifically disclose the ability to access the definition data of the virtual world with the URL. However it is inherent in the invention that when something is accessed on the Internet, it is via a URL.

Claim 9 is in the same context as claim 1; therefore it is rejected under similar rationale.

Claim 10 is in the same context as claim 2; therefore it is rejected under similar rationale.

Claim 12 is in the same context as claim 4; therefore it is rejected under similar rationale.

Claim 13 is in the same context as claim 5; therefore it is rejected under similar rationale.

Claim 14 is in the same context as claim 6; therefore it is rejected under similar rationale.

Claim 16 is in the same context as claim 8; therefore it is rejected under similar rationale.

In regards to claim 17, Kenney, Burge, and Cheng disclose all the limitations of claim 9. Kenney and Cheng do not teach an information processing apparatus wherein the data associated with the second virtual reality scene is definition data of said second virtual reality world. Burge disclose a Merchants Products and Services Database (Burge, Column 9, Line 61), or definition data, that may be used to create a virtual world based on the users interests.

Claims 18, 19, 21, 22, 23 and 25 are in the same context as claims 1, 2, 4, 5, 6 and 8 respectively; they are therefore rejected under similar rationale.

Claims 26, 27, 29, 30, 31, 33, and 34 are in the same context as claims 9, 10, 12, 13, 14, and 16 respectively, they are therefore rejected under similar rationale.

Claim 35 is in the same context as claim 1; therefore it is rejected under similar rationale.

In regards to claim 36, Kenney, Burge, and Cheng teach all the limitations of claim 35. Kenney, Burge, and Cheng further teach a method wherein said user inputted data is coordinate data and/or message data (Burge, Column 5, Line 61).

In regards to claim 37, though Kenney, Burge, and Cheng do not specifically disclose that he obtains the data associated with the virtual world through a URL, it is inherent in the invention that when something is accessed on the Internet, it is via a URL.

In regards to claim 38, Kenney, Burge, and Cheng disclose all the limitations of claim 9. Kenney and Cheng do not teach an information processing apparatus wherein the data associated with the second virtual reality scene is definition data of said second virtual reality world. Burge discloses a Merchants Products and Services Database (Burge, Column 9, Line 61), or definition data, that may be used to create a virtual world based on the user's interests.

Claim 39 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kenney (US 6381583) in view of Cheng (US 6396509).

In regards to claim 39, Kenney teaches a method for a three-dimensional virtual reality scene, comprising: determining whether or an extent to which a virtual object in the three-dimensional virtual reality scene is of interest to the user by analyzing a history of past actions of an avatar in the scene with respect to virtual objects in the three-dimensional virtual reality scene, the virtual objects including the virtual object, wherein the past actions comprise actions of the avatar as it was controlled, moved, or

oriented by the user within the three-dimensional virtual reality scene (i.e. *"These include pre-prepared lists of items routinely purchased, items purchased in the past, and items due for reorder based on prior purchase history."* Column 4, Line 25); and after the determining and responsive to the user controlling the same or another avatar within the three-dimensional virtual reality scene or another three-dimensional virtual reality scene, providing a three-dimensional virtual reality scene to the user, where the virtual object determined to be of interest to the user is specifically arranged or presented within the scene according to the user's determined interest or extent thereof in the virtual object (i.e. *"For example, certain products that are on "special" at the grocery store 2 might flash on the display screen of the display means 12. Alternatively, there might be a text indication noting that such product is on special. Such distinctive display can be applied for other purposes, examples of which include goods that may need to be reordered, items that have been selected for current purchase, etc."* Column 6, Line 41).

Kenney does not teach that a three-dimensional virtual reality scene displayed from a third-person point of view. Cheng teaches, *"Although the system 8, as depicted, provides a third person view of the environment, it is to be recognized that the system 8 can provide either/both third and first person views, without departing from the principles of the invention. That is, system preferably is implemented so that the virtual environment is presented to its participant either in first person or third person view: (i) first person view provides for experiencing and interacting in the virtual environment effectively as if the participant is the avatar (e.g., as if the participant sees the*

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environment effectively through the avatar's eyes) and (ii) third person view provides for experiencing and interacting in the virtual environment separate from the avatar (e.g., as if seeing the environment through a camera mounted at a view point effectively above the avatar and, in that regard, enabled to observe the avatar in the environment)" (Column 6, Lines 16-34). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Kenney with the teachings of Cheng and include a third person point of view with the motivation to provide the user with a better sense or awareness, of where the avatar is at a particular time.

Response to Arguments

Applicant's arguments with respect to claims 1, 2, 4, 5, 6, 8, 9, 10, 12, 13, 14, 16, 17, 18, 19, 21, 22, 23, 25, 26, 27, 29, 30, 31, 33, 34, 35, 36, 37, 38, and 39 have been considered but are moot in view of the new ground(s) of rejection.

Inquiry

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Boris Pesin whose telephone number is (571) 272-4070. The examiner can normally be reached on Monday-Friday except every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kristine Kincaid can be reached on (571) 272-4063. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

BP

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